

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Ni et al.	Docket No.: PF400D1C1D1
Application No.: Not Yet Assigned	Confirmation No.: Not Yet Assigned
Filed: Concurrently Herewith	Art Unit: N/A
<u>For: Human IRAK-2</u>	Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure imposed by 37 C.F.R. § 1.56 to inform the Patent and Trademark Office of all references coming to the attention of each individual associated with the filing or prosecution of the subject application, which are or may be material to the patentability of a claim of the subject application, Attorney for Applicants hereby directs the Examiner's attention to references A-CS listed on the attached Form PTO/SB/08.

A copy of reference A was submitted by Applicants or cited by the Examiner in connection with U.S. Application No. 08/980,060, filed November 26, 1997, now U.S. Patent No. 5,965,421, to which the instant application claims priority under 35 U.S.C. § 120. Copies of references B-CS were submitted by Applicants or cited by the Examiner in connection with U.S. Application No. 09/773,753, filed February 2, 2001, to which the instant application claims priority under 35 U.S.C. § 120. Pursuant to 37 C.F.R. § 1.98(d), the Examiner is directed to the file of U.S. Application Nos. 08/980,060 and 09/773,753 for copies of references A-CS.

The listed references are presented so that the Patent and Trademark Office can determine any materiality thereof to the claimed invention. See 37 C.F.R. § 1.104(a) concerning the Examiner's duty to consider and use any such information. Applicants respectfully request that the Examiner make the listed references of record in the file history of the application, and consider the information contained therein during the prosecution of this application.

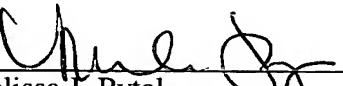
Identification of the listed references is not to be construed an admission of any individual associated with the filing or prosecution of the subject application that such references are available as "prior art" against the subject application. Furthermore, Applicants

do not waive any rights to take appropriate action to establish patentability over any of the listed documents should they be applied as references against the claims of the subject application.

Pursuant to 37 C.F.R. § 1.97(b), this Information Disclosure Statement is being filed before the mailing of a first Office Action on the merits. Accordingly, no fee is believed due. However, should the Patent Office determine otherwise, please charge the required fee to our Deposit Account No. 08-3425.

Dated: 9/9/03

Respectfully submitted,

By 

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U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
A	US-5,965,421-B1	10-12-1999	Ni et al.		
B	US-6,222,019-B1	04-24-2001	Ni et al.		
C	US-5,654,397-B1	08-05-1997	Cao et al.		
D	09/912,293	NOT PUBLISHED	Rosen, et al.	Pages 1-75 (pages 1 & 2 partially redacted); portion of Table 2; and SEQ ID NOS:5819, 29957, and 47106	
E	09/912,292	NOT PUBLISHED	Rosen, et al.	Pages 1-75 (pages 1 & 2 partially redacted); portion of Table 2; and SEQ ID NOS:557, 3821, 6645, and 6418	

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)			
F	WO-94/17187-A1		08-04-1994	The Government of the United States of America	
G	WO-97/00690-A1		01-09-1997	Tularik, Inc.	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
	H	Bergers et al., "Alternative promoter usage of the Fos-responsive gene Fit-1 generates mRNA isoforms coding for either secreted or membrane-bound proteins related to the IL-1 receptor," <i>EMBO J.</i> 13(5):1176-1188, Oxford University Press (1994).			
	I	Bird et al., "Evidence that MAP (Mitogen-Activated Protein) Kinase Activation May Be a Necessary but Not Sufficient Signal for a Restricted Subset of Responses in IL-1-Treated Epidermoid Cells," <i>Cytokine</i> 4(6):429-440, Academic Press (1992).			
	J	Bonnert et al., "The cloning and characterization of human MyD88: a member of an IL-1 receptor related family," <i>FEBS Lett.</i> 402(1):81-84, Elsevier (January 1997).			
	K	Cao et al., "IRAK: A Kinase Associated with the Interleukin-1 Receptor," <i>Science</i> 271:1128-1131, Association for the Advancement of Science (February 1996).			
	L	Cao et al., "TRAF6 is a signal transducer for interleukin-1," <i>Nature</i> 383:443-446, Macmillan Publishers Ltd. (October 1996).			
	M	Cleary et al., "Cloning and Structural Analysis of cDNAs for bcl-2 and a Hybrid bcl-2/Immunoglobulin Transcript Resulting from the t(14;18) Translocation," <i>Cell</i> 47:19-28, Cell Press (1986).			

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	N	Eldon et al., "The Drosophila 18 wheeler is required for morphogenesis and has striking similarities to Toll," <i>Development</i> 120(4):885-899, The Company of Biologists Limited (1994).	
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	Q	Fleischmann et al., "Whole-Genome Random Sequencing and Assembly of Haemophilus influenzae Rd," <i>Science</i> 269:496-512, Association for the Advancement of Science (1995).	
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	T	Gayle et al., "Cloning of a Putative Ligand for the T1/ST2 Receptor," <i>J. Biol. Chem.</i> 271(10):5784-5789, American Society for Biochemistry and Molecular Biology, Inc. (March 1996).	
	U	Greenfeder et al., "Molecular Cloning and Characterization of a Second Subunit of the Interleukin 1 Receptor Complex," <i>J. Biol. Chem.</i> 270(23):13757-13765, American Society for Biochemistry and Molecular Biology, Inc. (1995).	
	V	Großhans et al., "Activation of the kinase Pelle by Tube in the dorsoventral signal transduction pathway of Drosophila embryo," <i>Nature</i> 372:563-566, Macmillan Publishers Ltd. (1994).	
	W	Hardiman et al., "Molecular characterization and modular analysis of human MyD88," <i>Oncogene</i> 13(11):2467-2475, Stockton Press (December 1996).	
	X	Hashimoto et al., "The Toll Gene of Drosophila, Required for Dorsal-Ventral Embryonic Polarity, Appears to Encode a Transmembrane Protein," <i>Cell</i> 52:269-279, Cell Press (1988).	
	Y	Hofmann et al., "The death domain motif found in Fas (Apo-1) and TNF receptor is present in proteins involved in apoptosis and axonal guidance," <i>FEBS Lett.</i> 371(3):321-323, Elsevier (1995).	
	Z	Hopp, T.P., "Evidence from sequence information that the interleukin-1 receptor is a transmembrane GTPase," <i>Protein Science</i> 4(9):1851-1859, Cambridge University Press (1995).	
	AA	Hultmark, D., "Macrophage Differentiation Marker MyD88 Is a Member of the Toll/IL-1 Receptor Family," <i>Biochem. Biophys. Res. Commun.</i> 199(1):144-146, Academic Press, Inc. (1994).	
	AB	Klemenz et al., "Serum- and oncoprotein-mediated induction of a gene with sequence similarity to the gene encoding carcinoembryonic antigen," <i>Proc. Natl. Acad. Sci. USA</i> 86(15):5708-5712, National Academy of Sciences of the USA (1989).	
	AC	Kumar et al., "ST2/T1 Protein Functionally Binds to Two Secreted Proteins from Balb/c 3T3 and Human Umbilical Vein Endothelial Cells but Does Not Bind Interleukin 1," <i>J. Biol. Chem.</i> 270(46):27905-27913, American Society for Biochemistry and Molecular Biology, Inc. (1995).	
	AD	Letsou et al., "Domain mapping of tube, a protein essential for dorsoventral patterning of the Drosophila embryo," <i>EMBO J.</i> 12(9):3449-3458, Oxford University Press (1993).	
	AE	Lord et al., "Nucleotide sequence and expression of a cDNA encoding MyD88, a novel myeloid differentiation primary response gene induced by IL6," <i>Oncogene</i> 5(7):1095-1097, Stockton Press (1990).	
	AF	Medzhitov et al., "A human homologue of the Drosophila Toll protein signals activation of adaptive immunity," <i>Nature</i> 388:394-397, Macmillan Publishers Ltd. (July 1997).	
	AG	Mitcham et al., "T1/ST2 Signaling Establishes It as a Member of an Expanding Interleukin-1 Receptor Family," <i>J. Biol. Chem.</i> 271(10):5777-5783, American Society for Biochemistry and Molecular Biology, Inc. (March 1996).	

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				Art Unit	N/A
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Sheet	3	of	4	Attorney Docket Number	PF400D1C1D1

	AH	Muzio et al., "IRAK (Pelle) family member IRAK-2 and MyD88 as proximal mediators of IL-1 signaling," <i>Science</i> 278:1612-1615, Association for the Advancement of Science (1997).	
	AI	Norris et al., "Functional interactions between the pelle kinase, Toll receptor, and tube suggest a mechanism for activation of dorsal," <i>Genes Dev.</i> 10(7):862-872, Cold Spring Harbor Laboratory Press (April 1996).	
	AJ	Nomura et al., "Prediction of the Coding Sequences of Unidentified Human Genes. I. The Coding Sequences of 40 New Genes (KIAA0001-KIAA0040) Deduced by Analysis of Randomly Sampled cDNA Clones from Human Immature Myeloid Cell Line KG-1," <i>DNA Res.</i> 1:27-35, Universal Academy Press (1994).	
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	AO	Sims et al., "cDNA Expression Cloning of the IL-1 Receptor, a Member of the Immunoglobulin Superfamily," <i>Science</i> 241:585-589, Association for the Advancement of Science (1988).	
	AP	Sims et al., "Genomic Organization of the Type I and Type II IL-1 Receptors," <i>Cytokine</i> 7(6):483-490, Academic Press (1995).	
	AQ	Singh et al., "Cytosolic Domain of the Type I Interleukin-1 Receptor Spontaneously Recruits Signaling Molecules to Activate a Proinflammatory Gene," <i>J. Clin. Invest.</i> 100(2):419-428, The Rockefeller University Press (July 1997).	
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	AS	Yanagisawa et al., "Presence of a novel primary response gene ST2L, encoding a product highly similar to the interleukin 1 receptor type 1," <i>FEBS Lett.</i> 318(1):83-87, Elsevier (1993).	
	AT	GenBank Accession No. C05986, from Takeda, J. (October 1996).	
	AU	GenBank Accession No. W79504, from Hillier, L. et al. (October 1996).	
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	BK	GenBank Accession No. AA579566, from NCI-CGAP (September 1997).	
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	BM	GenBank Accession No. AA602557, from NCI-CGAP (September 1997).	
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	CN	GenBank Accession No. AA876147, from NCI-CGAP (March 1998).	
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